

Applicant : David M. Mitteer
Appln. No. : 10/629,503
Page : 3

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A shift mechanism, comprising:
 - a base;
 - a shift gate having a plurality of notches defining gear positions;
 - a shift lever movably mounted to the base;
 - a pawl configured to move between an engaged position, wherein the pawl engages the shift gate and restricts movement of the shift lever, and a disengaged position;
 - a button on the shift lever operably connected to the pawl such that pushing of the button moves the pawl from the engaged position to the disengaged position; and
 - a pneumatic mechanism providing a first resistance against movement of the pawl in a first direction from the engaged position to the disengaged position, and providing a second resistance against movement of the pawl in a second direction from the disengaged position to the engaged position, the second resistance being greater than the first.
2. (original) The shift mechanism of claim 1, including:
 - a linkage disposed in the shift lever and coupled to the pawl for shifting the pawl between the engaged and disengaged positions.
3. (original) The shift mechanism of claim 2, wherein:
 - said pawl is biased into the engaged position.
4. (original) The shift mechanism of claim 2, wherein:
 - the shift lever includes a knob, the button being positioned on the knob;
 - said pneumatic mechanism includes a passageway through which fluid passes as the button is depressed, the pneumatic mechanism including a movable member that selectively restricts the passageway depending upon the direction of movement of the button.

Applicant : David M. Mitteer
Appln. No. : 10/629,503
Page : 4

5. (original) The shift mechanism of claim 4, wherein:
the movable member comprises a resilient ring;
the pneumatic mechanism includes an annular groove, the resilient ring disposed in the annular groove.
6. (original) The shift mechanism of claim 5, wherein:
the pneumatic mechanism includes a cylindrical chamber in the knob and a plunger, at least a first end portion of which is slidably disposed in the cylindrical chamber, the annular groove located adjacent the first end portion of the plunger.
7. (original) The shift mechanism of claim 6, wherein:
the plunger defines an axis along which the plunger moves;
the chamber defines a chamber sidewall;
the annular groove defines a base wall and opposed sidewalls;
the resilient ring frictionally engaging the base wall of the groove and the chamber sidewall and shifting between the sidewalls of the annular groove upon movement of the plunger in the chamber.
8. (original) The shift mechanism of claim 7, wherein:
the plunger includes a slot extending axially from the base wall towards a second end portion of the plunger to form the passageway, the resilient ring closing off the passageway as the plunger is moved outwardly, and permitting fluid flow through the passageway as the plunger is moved inwardly.
9. (original) The shift mechanism of claim 8, wherein:
the resilient ring comprises an O-ring.
10. (previously presented) A shift mechanism, comprising:
a base;

a shift lever movably mounted to the base;

a shift knob mounted to the shift lever, the shift knob having a cavity defining a sidewall;

a plunger having at least a first end portion movably disposed in the cavity, the first end portion including an annular groove defining a base wall, the first end portion having a passageway extending from the annular groove away from the first end portion; and

a resilient ring in the annular groove, the resilient ring having an outer peripheral edge sealingly engaging the sidewall, and an inner edge engaging the base wall of the annular groove, the resilient ring configured to shift within the annular groove to close off the passageway upon movement of the plunger.

11. (previously presented) The shift mechanism of claim 10, wherein:
the plunger includes a slot forming the passageway, the slot extending from the base wall of the annular groove away from the first end portion.

12. (previously presented) The shift mechanism of claim 10, wherein:
the resilient ring comprises an O-ring.

13. (currently amended) The shift mechanism of claim 10, wherein:
the cavity comprises a first cavity having a cylindrical shape and defining a first diameter;

the knob further defining a second cylindrical cavity coaxial with the first cavity and defining a second diameter that is larger than the first diameter;

~~the plunger~~ a slide member including a second cylindrical end portion slidably disposed in the second cavity, the plunger extending axially from the slide member.

14. (currently amended) The shift mechanism of claim 13, wherein:
the plunger includes a pair of spaced-apart extensions extending generally parallel to the first end portion, and having outer cylindrical surface portions contiguous with the second

cylindrical end portion of the slide member, wherein the first end portion is disposed between the extensions.

15. (currently amended) The shift mechanism of claim 13, wherein:

the pawl release mechanism includes a shift lever connected to the shift knob, and an axially movable link mounted in the shift lever;

the second cavity ~~defines an~~ is elongated and defines a longitudinal axis;

the second cylindrical end portion of the plunger includes a wedge surface disposed non-orthogonal relative to the axis, the wedge surface configured to push the link axially along the shift lever.

16.-23. Canceled.

24. (New) A shift mechanism, comprising:

a base;

a shift gate having a plurality of notches defining gear positions;

a shift lever movably mounted to the base;

a pawl configured to move along a first direction between an engaged position where the pawl engages the shift gate and restricts movement of the shift lever, and a disengaged position;

a knob attached to and positioned on the shift lever and defining an elongated cavity with an open end and a closed end, the elongated cavity extending in a second direction generally perpendicular to the first direction of the pawl;

a slide member operably connected to the pawl and positioned in the elongated cavity for sliding movement along the perpendicular second direction, the slide member supporting a button positioned in the open end of the knob so that when the button is manually depressed, the slide member moves along the cavity and in turn moves the pawl from the engaged position to the disengaged position; and

a pneumatic mechanism located in the closed end of the elongated cavity opposite the

button, the pneumatic mechanism including a plunger on one of the slide member and the knob and including a mating cavity on the other of the slide member and the knob, the plunger and mating cavity being configured to control air flow to provide a first resistance against movement of the slide member and pawl from the engaged position to the disengaged position, and configured to control air flow to provide a second resistance against movement of the slide member and pawl from the disengaged position to the engaged position, the second resistance being different than the first.

25. (New) A shift mechanism, comprising:

a base;

a shift gate having a plurality of notches defining gear positions;

a shift lever movably mounted to the base, the shift lever incorporating a tubular member;

a pawl configured to move along a first direction along the tubular member between an engaged position where the pawl engages the shift gate and restricts movement of the shift lever, and a disengaged position;

a knob attached to and positioned on the shift lever and defining an elongated cavity with an open end and a closed end, the elongated cavity extending in a second direction generally perpendicular to the first direction of the pawl;

a slide member positioned in the elongated cavity for sliding movement along the perpendicular second direction;

an elongated inner member connected to the pawl and extending into contact with the slide member, the slide member supporting a button positioned in the open end of the knob so that when the button is manually depressed, the slide member moves along the cavity and in turn moves the elongated inner member and also the pawl from the engaged position to the disengaged position; and

a pneumatic mechanism located along the tubular member, the pneumatic mechanism including a plunger on one of the tubular member and the elongated inner member and including a mating cavity on the other of the tubular member and the elongated inner member,

Applicant : David M. Mitteer
Appln. No. : 10/629,503
Page : 8

the plunger and mating cavity being configured to control air flow to provide a first resistance against movement of the pawl from the engaged position to the disengaged position, and configured to control air flow to provide a second resistance against movement of the pawl from the disengaged position to the engaged position, the second resistance being different than the first.

26. (New) The shifter mechanism of claim 1, wherein the shifter lever includes a structural tubular member that operably supports the pawl and a knob on the tubular member that operably supports the button, and wherein the knob is palm-sized and configured to receive a user's hand, and further wherein the pneumatic mechanism is positioned within at least one of the structural tubular member and the knob.